

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1: (currently amended) A ~~modified~~ toxin, comprising a polypeptide sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8; wherein the polypeptide sequence is mutated in the region from residue 93 to residue 110 to contain ~~modified staphylococcal pyrogenic toxin having a disulfide loop region containing~~ no more than 10 amino acid residues; wherein toxicity is reduced in comparison to the unmutated ~~unmodified~~ native toxin.

Claims 2-4: (canceled)

Claim 5: (currently amended) The ~~modified~~ toxin of claim 1 wherein the polypeptide sequence is mutated in the region from residue 93 to residue 110 to contain ~~disulfide loop region~~ contains no more than 6 amino acid residues.

Claim 6: (canceled)

Claim 7: (currently amended) The ~~modified~~ toxin of claim 1 6, wherein the mutation ~~modification~~ comprises a deletion of at least 8 amino acid residues in the region from residue 93 to residue 110 ~~within the disulfide loop region~~.

Claim 8: (currently amended) The ~~modified~~ toxin of claim 1, 7 wherein the polypeptide sequence comprises SEQ ID NO: 1 and the mutation ~~modification~~ comprises a deletion of amino acid residues 98-106 of SEQ ID NO: 1.

Claim 9: (currently amended) The ~~modified~~ toxin of claim 7, 6 wherein the mutation modification comprises deletion of at least 12 amino acid residues in the region from residue 93 to residue 110 ~~within the disulfide loop region~~.

Claim 10: (currently amended) The ~~modified~~ toxin of claim 1, 9 wherein the polypeptide sequence comprises SEQ ID NO: 1 and the mutation modification comprises deletion of amino acid residues 95-106 of SEQ ID NO: 1.

Claim 11: (canceled).

Claim 12: (currently amended) The ~~modified~~ toxin of claim 1, 11 wherein the polypeptide sequence comprises SEQ ID NO: 1 and the mutation further comprises a cysteine residue at position 94 of SEQ ID NO: 1.

Claims 13-15: (canceled).

Claim 16: (currently amended) The ~~modified~~ toxin of claim 1 having an emetic response inducing activity decreased by at least 100-fold in comparison to the native toxin.

Claim 17: (currently amended) The ~~modified~~ toxin of claim 1 having a fever inducing activity decreased by at least 100-fold in comparison to the native toxin.

Claim 18: (currently amended) The ~~modified~~ toxin of claim 1 having an LD50 in Dutch Belted rabbits which is at least 100-fold higher than the native toxin.

Claim 19: (currently amended) A ~~modified-pyrogenic~~ staphylococcal toxin, comprising an amino acid sequence of a Type C staphylococcal toxin having a disulfide loop region wherein

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~~the modification comprises deletion of~~ at least 40% of the amino acid residues within the disulfide loop region are deleted of the native pyrogenic toxin.

Claim 20: (currently amended) The ~~modified pyrogenic~~ staphylococcal toxin of claim 19 comprising a cysteine residue at position 2 of the disulfide loop region, wherein the disulfide loop region, before deletion of at least 40% of the amino acid residues, is selected from the group consisting of SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, and SEQ ID NO: 17.

Claims 21-23: (canceled)

Claim 24: (currently amended) A ~~modified pyrogenic~~ staphylococcal toxin, wherein the ~~modified pyrogenic staphylococcal~~ toxin comprises a disulfide loop region comprising SEQ ID NO: 66 (Cys-Cys-Gly-Lys-Thr-Cys) ~~which includes no more than 10 amino acid residues.~~

Claims 25-27: (canceled).